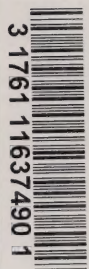


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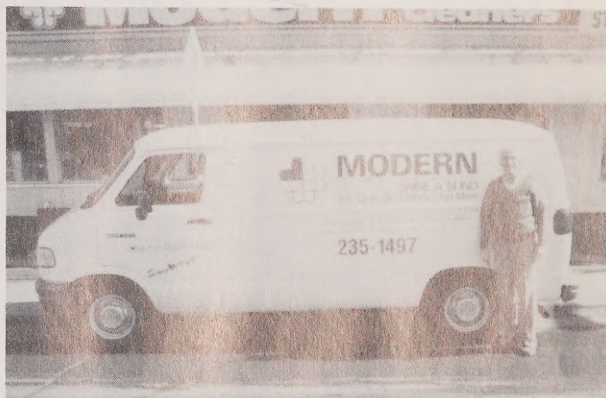
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FleetSmart PROFILES

MODERN DRY CLEANERS

*Conversion to natural
gas cuts delivery van
fuel costs in half*

Modern Dry Cleaners of Ottawa provides a personal and industrial dry-cleaning service in the National Capital Region. Second-generation owner and manager Ron Potter has seen many changes over the years. Most recently, business has been affected by the economic downturn, as well as by a general decline in the demand for dry-cleaning services. In this environment, controlling operating costs has become critical.



Searching for a low-cost transportation fuel

Modern Dry Cleaners has a mixed fleet of eight vehicles — two medium-size cube vans, three panel vans and three cars. The vehicles are used to transport clothing and other items to and from the company's central laundry and dry-cleaning plant in the downtown area. They are also used to take workers and materials to on-site jobs, such as cleaning the curtains and blinds in an office building. Most of the company's business is conducted in the Ottawa area, and the average daily travelling distance is approximately 150 kilometres per vehicle. The fleet includes Ford, Chrysler and General Motors products, all equipped with V8 engines. The loads are not heavy, and the vehicles are usually filled to capacity with clothing and other materials long before weight becomes a concern.

Fuel costs are an important item on the company's balance sheet. For a period, the company purchased diesel-fuelled vans as a cost-cutting strategy. Diesel

service

fuel worked well and, as expected, was more economical than gasoline. However, the diesel vans were more expensive to purchase than gasoline vehicles, and the fuel costs were still substantial. Mr. Potter's ongoing research into less expensive options led him to investigate natural gas, which has proven to be the most economical of all the fuel options and brings other advantages to the company.

Since conversion of diesel engines is not a practical proposition, Modern Dry Cleaners chose to buy new gasoline vans and have them immediately converted to dual-fuel (gasoline/natural gas) operation. Each conversion was completed in a day, including installation of natural gas storage tanks. The first van was purchased and converted three years ago, and the firm now has three natural gas vans in the fleet. Since all three vans were converted when new, Modern Dry Cleaners was eligible for the Ontario provincial vehicle sales tax rebate (up to \$800) offered on vehicles converted to alternative fuels before they are six months old.

The conversions are the simple venturi-feed type, allowing for on-the-go switching between natural gas and gasoline. Each van is fitted with two steel natural gas storage tanks. One tank is fitted beneath the floor of the van, and the second is carried in a fabricated frame inside the cargo area. The natural gas refuelling valve is positioned under the hood. The standard gasoline tank is retained to allow operation using gasoline, should the vehicle run out of natural gas. In order to maintain the gasoline fuel pump in good operating condition and to prevent possible contamination and seizure of the fuel injectors, the engine must be run periodically on gasoline. Modern Dry Cleaners fulfills this simple requirement by starting the vehicles on gasoline and switching to natural gas after a minute or two of running time. No starting problems have been experienced, and the engines pick up well on natural gas, even at very low temperatures.

Driver support and an on-site compressor

"Although our drivers were initially a bit sceptical of the conversions, they now use

natural gas as much as possible," reports

Mr. Potter. "One of our drivers was very proud of the fact that he had filled the gasoline tank in February, and then did not have to fill it again until June."

Mr. Potter acknowledges that the support of the drivers has been critical to the success of the conversion program. That support is due in large part to the fact that there has been no noticeable difference in power output with natural gas fuel, and only the briefest "blip"

in the engine when switching between fuels on the road.

However, the real clincher for the drivers and management alike was the installation of a refuelling compressor at the company's central depot. This system was installed about a year ago, when Modern Dry Cleaners converted its third van. The system is rented from the local gas utility at a cost of \$49.75 per month, which includes a full servicing and maintenance program.

The small, self-contained compressor can be quickly connected to any existing natural gas service and can fill two vans simultaneously overnight. The vans can also be connected to the compressor at any time during the day for a quick top-up of fuel. Natural gas from the compressor is charged at the company's industrial rate of 22 cents per gasoline-litre-equivalent. The cost of natural gas fuel at retail outlets in Ottawa is about 33 cents per gasoline-litre-equivalent.

Typically, the van fuel tanks are 1/3 to 1/4 full at the end of the day,

and there is plenty of time overnight for the compressor to refill two vans before the next workday begins. The drivers appreciate the convenience of the on-site, overnight refuelling. Mr. Potter says they became more enthusiastic about natural gas once they realized that using the new fuel would mean they did not have to spend time going to the gas station or pumping gas on cold winter mornings.

Impressive cost savings

While Mr. Potter is aware of the environmental benefits of using alternative fuels in his fleet vehicles, including reduced emissions of toxic pollutants and greenhouse gases, the primary reason for the switch to natural gas was the impressive cost savings. After fuel, engine conversion and other costs are taken into account (the storage tanks are also leased from the local utility),

Cost Comparison: Diesel vs. Natural Gas

Modern Dry Cleaners' vans normally operate for an average of 22 working days per month. The usual daily cost of fuel for a diesel van is \$14.00. For a natural gas van, fuel costs are about \$5.00 per day. The monthly cost comparison, per van, is as follows:

Diesel Van — \$14 per day x 22 days:	\$308.00
Natural Gas Van:	
Fuel — \$5.00 x 22 days:	\$110.00
Tank Lease:	\$ 28.00
Engine Conversion*:	\$ 4.50
On-site Compressor Rental**:	\$ 16.50
Total:	\$159.00

MONTHLY SAVING PER VAN: \$149.00

* The \$1,800.00 list price for the conversion was offset by a \$500.00 rebate from Natural Resources Canada. The price of the engine conversions was further offset by the \$800.00 Ontario provincial sales tax rebate, which reduced the actual cost of the conversions to \$500.00. Over the anticipated 10-year life of the vans, this results in a cost of \$50.00 per year. On a monthly basis, the cost of the conversion is therefore \$4.50 ($\$50.00 \div 12$).

** The compressor rental cost works out to about \$16.50 per van per month ($49.75 \div 3$). The cost of electricity for the compressor is small and can essentially be written off against the increased convenience and time saved by the on-site refuelling.

the company has determined that it is operating each van for approximately \$159 per month — about half the cost of operating the same vans using diesel fuel (see the cost comparison box).

Not surprisingly, Mr. Potter is convinced of the value of natural gas as a transportation fuel and plans to immediately convert all vehicles he purchases in the future. The company has decided not to convert its other existing vehicles because of their limited remaining service life and the fact that they would not be eligible for the provincial sales tax rebate for conversions.

Natural gas: a good fit

Natural gas fuel is a good fit for Modern Dry Cleaners for several reasons. The company's daily vehicle range is only about 150 kilometres, and the operating area is fairly small. The vans do not carry heavy loads and have enough room to allow for an extra fuel storage cylinder. Since the company uses natural gas as part of its normal business activities, installation of the on-site compressor allows for ease of refuelling and the purchase of gas at an advantageous price (without the retailer's markup). Finally, the company's hours of operation allow plenty of time for overnight refuelling.

Mr. Potter has a preference for dual-fuel conversions, as this allows the vehicles to occasionally go beyond their normal delivery area without fear of being unable to refuel. Since the conversion equipment and natural gas storage tanks can be removed and used on other vehicles, retaining the dual-fuel capacity leaves the original gasoline tank and system in place for easy conversion back to gasoline operation.

"Our experience with natural gas has been completely positive," says Mr. Potter. "There have been no starting or running problems and no breakdowns." Like most natural gas fuel users, the company has found that the engine oil remains much cleaner. As a result, fewer oil changes are needed, which in turn saves additional money.

**For more information on
fleet energy-saving opportuni-
ties, please write to**

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Ottawa, Ontario

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ISBN: 0-662-24889-9
Cat. no.: M91-24/1-1996E





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